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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,905	03/21/2001	Petter Ericson	3782-0118P	1164

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EXAMINER

MOUTTET, BLAISE L

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 12/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/812,905	ERICSON ET AL.	
	Examiner	Art Unit	
	Blaise L Mouttet	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>12, 14</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Applicant's amendment submitted November 8, 2002 has overcome the 35 USC 112 rejection contained in the prior office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 8-10, 12-14, 16-18, 20, 22-25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada US 5,927,872 in view of Sekendur US 5,852,434.

Yamada discloses, regarding claims 1, 20, 22-25 and 27, a handheld printer/scanner (figure 3) for printing graphical information on a surface comprising:

an inkjet print head (28) for printing indicia on the surface by ejecting ink through nozzles (column 5, lines 10-20);

an image sensor (30) for recording an image of the surface, wherein the recorded image contains a position coding pattern (62) that identifies a position on the surface (column 3, lines 32-39, column 5, lines 61-67, figure 5); and

a processor (76) for converting the recorded image into a recorded position (column 7, lines 58-67),

wherein the print head (28) prints indicia on the surface based on a comparison of the recorded position with graphical information to be printed (column 7, lines 58-67, figure 5).

Regarding claim 2, see column 4, lines 25-29 where the graphic information is specified as textual or non-textual.

Regarding claims 3 and 8, see column 7, lines 1-15 and 33-34 that describe the memory (78) for storing a plurality of graphic positions to be printed on the media.

Regarding claim 4, the computer system (12) receives the graphic information from the user and converts it to the plurality of graphic positions transferred to the processor (76) and memory (78) (column 7, lines 17-32).

Regarding claims 5 and 6, see column 3, lines 32-39 and column 7, lines 33-54.

Regarding claims 9, 23 and 24, see column 9, lines 45-63.

Regarding claims 14, 16 and 27, see figure 3.

Regarding claims 17 and 18, see column 5, lines 11-20.

Regarding the method of claim 22, see column 9, lines 39-63 and figure 8 wherein steps 110 and 120 represent the accessing step, step 140 is the recording step and step 150 is the printing step.

Yamada fails to disclose, regarding claims 1, 10, 12, 13, 20, 22-25 and 27 that the recorded position is defined by two coordinate values based on position codes to determine a speed and direction of the printhead in relation to the print surface.

Sekendur discloses utilizing a recorded position to define plural coordinates values based on position codes to determine the speed and direction of a pen/scanner combination in relation to a print surface (column 3, lines 16-32).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the recorded position of Yamada to define plural coordinates to determine the speed and direction of the printing element as taught by Sekendur.

The motivation for doing so would have been to avoid tracking errors by accurately determining the position and movement of the printing element as suggested by column 2, lines 59-63 of Sekendur.

3. Claims 11, 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada US 5,927,872 in view of Sekendur US 5,852,434, as applied to claims 10, 20 and 25, and further in view of Sato et al. US 4,851,921.

Yamada in view of Sekendur fails to disclose determining whether the speed of the printhead in relation to the print surface is constant and terminating printing when the speed changes at a rate greater than a predetermined value.

Sato et al. determines in a handheld printer/scanner whether the speed of a printhead in relation to the print surface is constant and provides a warning alarm when the speed changes at a rate greater than a predetermined value (see abstract).

It would have been obvious for a person of ordinary skill in the art to perform the determination of Sato et al. in the apparatus of Yamada in view of Sekendur and halt printing when the speed changes at a rate greater than a predetermined value.

The motivation for doing so would have been to reduce errors occurring during printing and scanning due to an unstable moving speed of the printhead as taught by column 1, line 64 - column 2, line 5 of Sato et al.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada US 5,927,872 in view of Sekendur US 5,852,434, as applied to claim 1, and further in view of Montgomery et al. US 4,797,544.

Yamada in view of Sekendur fails to disclose that the angle of the main viewing direction of the image sensor is determined with respect to the printing surface based on the recorded image.

Montgomery et al. teaches determining the angle of the main viewing direction of a handheld scanner by detecting indicia on a printed surface (column 1, lines 52-56).

It would have been obvious for a person of ordinary skill in the art to determine the angle of the main viewing direction of the image sensor of Yamada in view of Sekendur as taught by Montgomery et al.

The motivation for doing so would have been to accurately detect the image recorded by the image sensor so that the position of the scanner may be accurately tracked as taught by column 1, lines 52-56 of Montgomery et al.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada US 5,927,872 in view of Sekendur US 5,852,434, as applied to claim 1, and further in view of Poole US 5,816,718.

Yamada in view of Sekendur fails to disclose that the printhead of the handheld printer is a thermal marking printhead.

Poole discloses a hand-held printer and teaches the equivalence to one of ordinary skill in the art of inkjet and thermal printheads in hand-held printers (column 6, lines 46-50).

It would have been obvious to a person of ordinary skill in the art to utilize a thermal printhead instead of the inkjet printhead of Yamada in view of Sekendur given the equivalence taught by Poole.

Response to Arguments

6. Applicant's arguments filed November 8, 2002 have been fully considered but they are not persuasive.

The applicant has argued that there is insufficient motivation for the proposed combination of Yamada '872 and Sekendur '434 as in the applied rejections and that the proposed modification would change the principle of operation of the Yamada reference.

The examiner notes that while Yamada teaches utilizing primarily the printed portions as positional references other referencing schemes are contemplated so clearly other referencing schemes would not change the principle of operation of Yamada (see column 3, lines 32-39 of Yamada). Sekendur teaches such an improved referencing scheme in which coded positional references provide not just relative positional information but absolute positional information in the form of encoded X and Y

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coordinates (see column 2, lines 59-63, column 3, lines 7-10 of Sekendur). This greatly improves the precision of the positional information obtained. Sekendur even refers to the deficiencies of a relative positional referencing such as Yamada's (see column 1, line 66 - column 2, line 16 of Sekendur) in order to point out how the disclosed absolute referencing system is an improvement. Therefore the examiner concludes that there is an overwhelming amount of motivation in the prior art for the proposed combination and the applicant's argument's are without merit.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet whose telephone number is (703) 305-3007. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow, Jr. Art Unit 2853, can be reached on (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet December 5, 2002

Bm 12/5/02



ANH T.N. VO
PRIMARY EXAMINER

12/12/02